

WHAT IS CLAIMED IS:

1. An image display apparatus comprising:

image display means including scanning lines, modulation lines and display devices driven through said scanning lines and modulation lines;

a scanning circuit for supplying a scanning signal to said scanning line;

a modulating circuit for supplying a modulation signal to said modulation line;

a converting circuit for converting the number of scanning lines of an input image signal;

selecting means for selecting a scan method of any of a first scan method and a second scan method, the first scan method being adapted to simultaneously select a plurality of adjacent scanning lines during one selection period and select the same scanning line twice or more within one frame while a set of scanning lines to be simultaneously selected is changed, the second scan method being adapted to select one scanning line during one selection period and select the same scanning line only once within one frame; and

changing means for changing a vertical scaling filter characteristic of said converting circuit in accordance with the selected scan method,

wherein said vertical scaling filter characteristic in the case of said first scan method is

a characteristic having a weaker elimination effect on high frequency components as compared with said vertical scaling filter characteristic in the case of said second scan method.

2. An image display apparatus as defined in claim 1, wherein said changing means determine $H'()$ to satisfy $H() = H'() \cdot J()$ or substantially $H() = H'() \cdot J()$, where $H()$ is said vertical scaling filter characteristic in the case of said second scan method, $H'()$ is said vertical scaling filter characteristic in the case of said first scan method and $J()$ is a vertical spatial frequency characteristic reduced in the case of said first scan method.

3. An image display apparatus comprising:

image display means including scanning lines, modulation lines and display devices driven through said scanning lines and modulation lines;

a scanning circuit for supplying a scanning signal to said scanning line;

a modulating circuit for supplying a modulation signal to said modulation line;

selecting means for selecting a scan method of any of a first scan method and a second scan method, the first scan method being adapted to simultaneously select a plurality of adjacent scanning lines during

one selection period and select the same scanning line twice or more within one frame which a set of scanning lines to be simultaneously selected is changed, the second scan method being adapted to select one scanning line during one selection period and select the same scanning line only once within one frame;

a filter circuit for executing, to image data to be displayed in said image display means, a filtering processing for eliminating high frequency components and supplying the processed data to said modulation circuit; and

changing means for changing an elimination effect on the high frequency components in said filter circuit in accordance with the selected scan method,

wherein a characteristic of said filter circuit in the case of said first scan method is a characteristic having a weaker elimination effect on high frequency components as compared with a characteristic of said filter circuit in said second scan method.

4. An image display apparatus as defined in claim 3, wherein said changing means determine a characteristic of said filter circuit to satisfy $D(\) = D'(\)$ or substantially $D(\) = D'(\)$, where $D(\)$ is the vertical spatial frequency characteristic of said image display apparatus in the case of said second scan method and $D'(\)$ is the vertical spatial frequency

characteristic of said image display apparatus in the case of said first scan method.

5. An image display apparatus comprising:

image display means including scanning lines, modulation lines and display devices driven through said scanning lines and modulation lines;

a scanning circuit for supplying a scanning signal to said scanning line;

a modulating circuit for supplying a modulation signal to said modulation line; and

a converting circuit for converting the number of scanning lines of an input image signal,

wherein a characteristic $H'(\)$ of said converting circuit is determined such that characteristics $D(\)$ and $D'(\)$ are substantially identical with each other, where $D(\)$ is a vertical spatial frequency characteristic of said image display apparatus which is obtained in a second scan method that is adapted to select one scanning line during one selection period and select the same scanning line only once within one frame, and $D'(\)$ is a vertical spatial frequency characteristic of said image display apparatus which is obtained in a first scan method that is adapted to simultaneously select a plurality of adjacent scanning lines during one selection period and select the same scanning line twice or more within one frame while a

set of scanning lines to be simultaneously selected is being changed.

6. An image display apparatus comprising:

image display means including scanning lines, modulation lines and display devices driven through said scanning lines and modulation lines;

a scanning circuit for supplying a scanning signal to said scanning line;

a modulating circuit for supplying a modulation signal to said modulation line; and

a converting circuit for converting the number of scanning lines of an input image signal,

wherein a characteristic $H'()$ of said converting circuit is determined to satisfy $H() = H'() \cdot J()$ or substantially $H() = H'() \cdot J()$, where $H()$ is a characteristic of said converting circuit which is used in a second scan method that is adapted to select one scanning line during one selection period and select the same scanning line only once within one frame, $H'()$ is a characteristic of said converting circuit which is used in a first scan method that is adapted to simultaneously select a plurality of adjacent scanning lines during one selection period and select the same scanning line twice or more within one frame while a set of scanning lines to be simultaneously selected is changed, and $J()$ is a degradation characteristic of

vertical spatial resolution in the same case of said first scan method as compared with the case of said second scan method.

7. An image display apparatus as defined in any one of claims 1 to 6, wherein said display means have display devices at intersections of said scanning lines and said modulation lines, the display devices being one kind of devices selected from electro-emission device, EL device and plasma device.

8. A method for determination of characteristics in an image display apparatus comprising:

image display means including scanning lines, modulation lines and display devices driven through said scanning lines and modulation lines;

a scanning circuit for supplying a scanning signal to said scanning line;

a modulating circuit for supplying a modulation signal to said modulation line;

a converting circuit for converting the number of scanning lines of an input image signal,

wherein a characteristic $H'()$ of said converting circuit is determined to satisfy $H() = H'() \cdot J()$, where $H()$ is a characteristic of said converting circuit which is used in a second scan method that is adapted to select one scanning line during one

selection period and select the same scanning line only once within one frame, $H'()$ is a characteristic of said converting circuit which is used in a first scan method that is adapted to simultaneously select a plurality of adjacent scanning lines during one selection period and select the same scanning line twice or more within one frame while a set of scanning lines to be simultaneously selected is changed, and $J()$ is a degradation characteristic of vertical spatial resolution in the same case of said first scan method as compared with the case of said second scan method.

9. A method for determination of characteristics in an image display apparatus comprising:

image display means including scanning lines, modulation lines and display devices driven through said scanning lines and modulation lines;

a scanning circuit for supplying a scanning signal to said scanning line;

a modulating circuit for supplying a modulation signal to said modulation line;

a converting circuit for converting the number of scanning lines of an input image signal,

wherein a characteristic $H'()$ of said converting circuit is determined to satisfy substantially $H() = H'() \cdot J()$, where $H()$ is a characteristic of said

converting circuit which is used in a second scan method that is intended to select one scanning line during one selection period and select the same scanning line only once within one frame, $H'()$ is a characteristic of said converting circuit which is used in a first scan method that is adapted to simultaneously select a plurality of adjacent scanning lines during one selection period and select the same scanning line twice or more within one frame while a set of scanning lines to be simultaneously selected is changed, and $J()$ is a degradation characteristic of vertical spatial resolution in the same case of said first scan method as compared with the case of said second scan method.